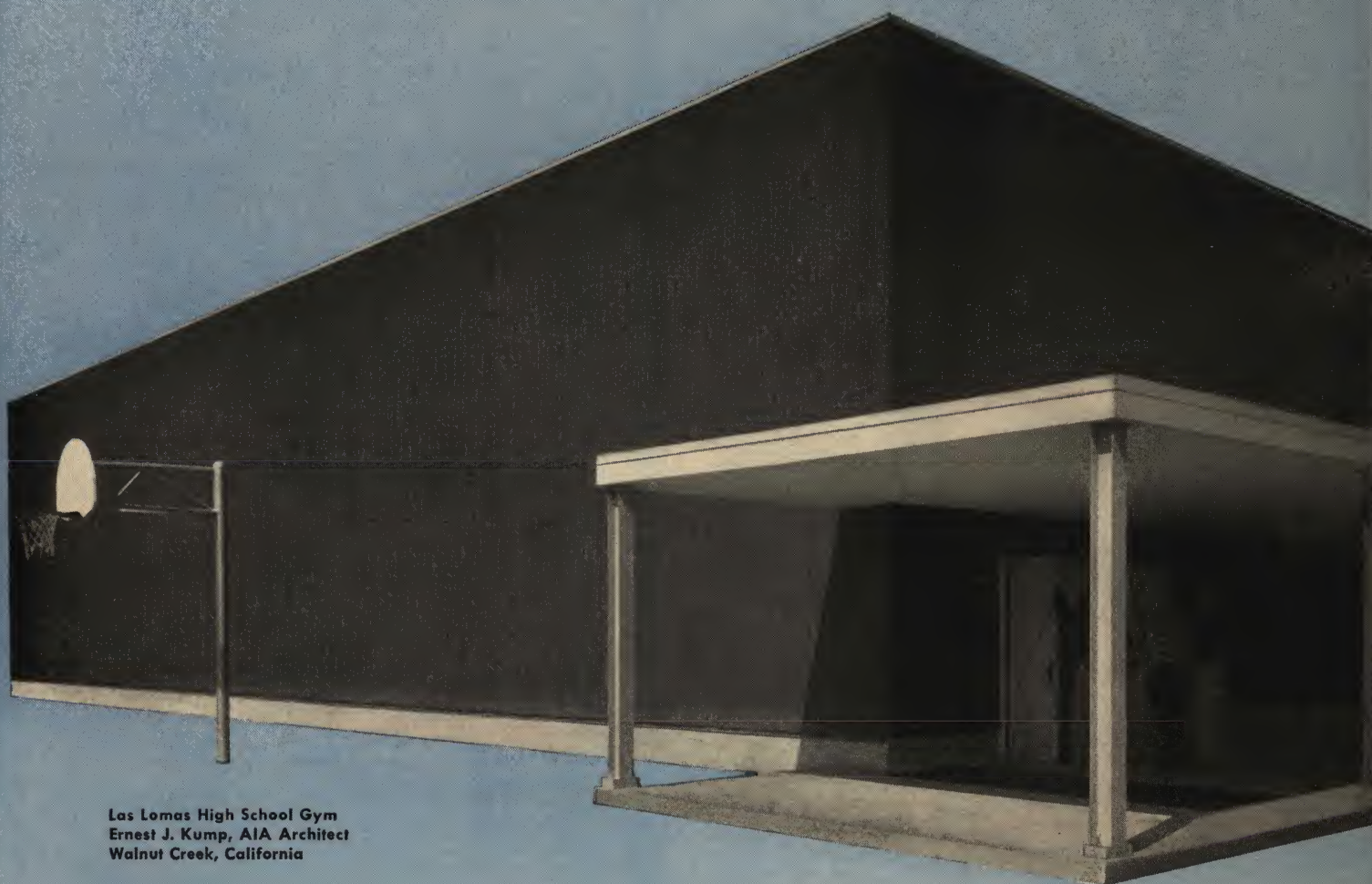


California Redwood Association



Las Lomas High School Gym
Ernest J. Kump, AIA Architect
Walnut Creek, California

The California Redwood Association is a service organization maintained by the principal redwood mills to provide architects, designers, and engineers with technical information on use of redwood, and information on local sources of supply.

use of Redwood

The principal architectural uses of redwood are for (1) siding and exterior trim, (2) interior paneling and woodwork, and for (3) garden structures, and, wherever the unusual durability of redwood heartwood is important.

Technical data on the architectural uses of California Redwood are given in more complete detail in the Architect's Redwood File which may be obtained by writing to the California Redwood Association, 576 Sacramento Street, San Francisco 11, California.

properties

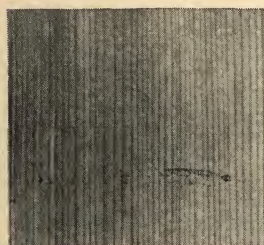
The following properties vary with different grades and different cuts of the log. They are subject to specification:

Strength—For working stresses see Data Sheet 2D2-2.

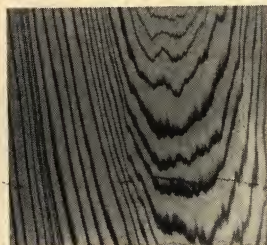
Durability—Specify an all heartwood grade if decay hazard is an important factor. See Data Sheet 2D2-1.

Colors—Heartwood is cinnamon red to brown. Sapwood is cream-colored.

Grain figure—Vertical grain has a subdued, uniformly lined pattern, and weathers exceptionally well. Flat grain has a more highly figured and decorative pattern. All grades normally may contain both vertical and flat grain pieces.



Vertical Grain



Flat Grain

Texture—Specify "Surfaced" for smooth finish; "Resawn Face" for lightly roughened; or "Rough" for texture produced by the sawmill; a rougher surface than resawn.

Moisture content—Specify "CRA-Certified Dry" or "Kiln-dried" redwood for siding, interior paneling, and finish.

The characteristics listed below are found in all grades and sizes of redwood lumber. They need not be covered in the specifications. Additional details may be obtained by requesting the appropriate data sheet:

Low Shrinkage	Sheet 2D2-3
Finish Maintenance	Sheet 4B5-1
Insulation	Sheet 2D2-6
Workability	Sheet 2A2-2
Gluing	Sheet 2A2-3
Light Weight	Sheet 2D2-4
Nail and Screw Holding	Sheets 4A1-1, 2

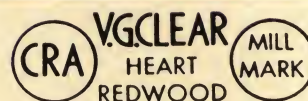
yard grades

The yard grades of redwood may be divided into those containing only the heartwood and those which have varying amounts of light-colored alburnum, or sapwood. Within these groups are (1) the finish grades, free from knots, used primarily for high quality interior and exterior finish, and (2) the construction grades, having characteristics which distinguish them from finish grades, but which are valuable for many general and specialized construction uses.

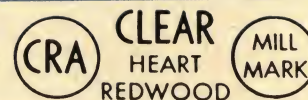
ALL HEARTWOOD

1. finish grades

VERTICAL GRAIN CLEAR ALL HEART—A specially selected grade for use in construction of highest possible quality. Standard grade for sidings only.

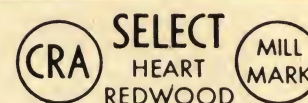


CLEAR ALL HEART—A superior grade used for exterior siding and millwork. Also used for interior paneling and trim.



2. construction grades

SELECT HEART—Finest of the heartwood construction grades, especially adaptable to high quality construction where wood comes in contact with the ground.



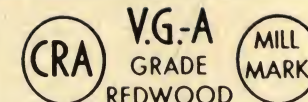
CONSTRUCTION HEART—Excellent all-purpose heartwood grade of lumber for garden, farm, and industrial structures, and for many applications where decay hazard exists.



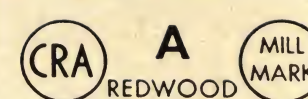
CONTAINING SAPWOOD

1. finish grades

VERTICAL GRAIN A-GRADE—A selected grade for interior and exterior surfaces. Contains clear sapwood. Standard for sidings only.



A-GRADE—Contains clear sapwood and is an excellent material for interior paneling and exterior surfaces.



2. construction grades

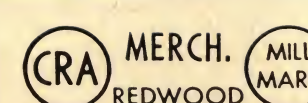
UTILITY—Boards and strips containing sapwood, adapted for barn siding, garage rustic, and similar uses.



SAP COMMON—Similar to Construction Heart except that it will contain sapwood. For low cost construction under conditions where decay resistant heartwood is not required.



MERCHANTABLE—The lowest of the construction grades, it furnishes a volume of material for low cost construction, and may be utilized without excessive waste.



Note:—For complete details, see Data Sheet 2B1-2, Yard Grades, or Standard Specifications for Grades of California Redwood Lumber.



Use economical Garden Redwood for landscaping structures

sizes (in inches)

The nominal and standard dressed sizes for yard grades are shown below. Thicknesses apply to all widths and widths apply to all thicknesses.

BOARDS, STRIPS, DIMENSION

thicknesses

rough (nominal)	1	1 1/4	1 1/2	2	3	4
dressed S1S or S2S (A)	25/32	1 1/16	1 1/8	1 3/4	2 5/8	3 5/8

widths

rough (nominal)	3	4	5	6	8	10	12
dressed S1S or S2S	(B)	2 5/8	3 5/8	4 5/8	5 5/8	7 1/2	9 1/2
	dry fin. (C)	2 5/8	3 1/2	4 1/2	5 1/2	7 1/4	9 1/4

SQUARES

rough (nominal)	3	4	5	6	8	10	12
	x 3	x 4	x 5	x 6	x 8	x 10	x 12
dressed, S4S (A)	2 5/8	3 5/8	4 5/8	5 5/8	7 1/2	9 1/2	11 1/2
	2 5/8	3 5/8	4 5/8	5 5/8	7 1/2	9 1/2	11 1/2

- (A) Surfaced dimensions for all yard grades, green or dry.
- (B) Surfaced widths for green Clear All Heart and A-Grade, and for all other yard grades, green or dry.
- (C) Surfaced widths for dry Clear All Heart and A-Grade, 3" or less in thickness.



"CRA-Certified Dry" should be specified for interior work

standard patterns ALL DIMENSIONS IN INCHES

TONGUE & GROOVE		size (nom.)	A	B	C	no.	
square edges		1 x 4	25/32	3 1/2	3 1/4	132	
		1 x 6	25/32	5 1/2	5 1/4	133	
eased edges		1 x 4	25/32	3 1/2	3 1/4	132EE	
		1 x 6	25/32	5 1/2	5 1/4	133EE	
VIS		1 x 4	25/32	3 1/2	3 1/4	207	
		1 x 6	25/32	5 1/2	5 1/4	208	
VIS		1 x 4	25/32	3 1/2	3 1/4	209	
		1 x 6	25/32	5 1/2	5 1/4	211	
		1 x 8	25/32	7 1/2	7 1/4	212	
		1 x 10	25/32	9 1/2	9 1/4	213	
drop siding		1 x 6	3/4	5 1/2	5 1/4	106	
paneling		1 x 6	3/4	5 1/4	5	516	
		1 x 8	3/4	7 1/4	7	517	
		1 x 10	3/4	9 1/4	9	518	
		1 x 12	3/4	11 1/4	11	519	
SHIPLAP		size (nom.)	A	B	C	no.	
plain		1 x 4	25/32	3 1/2	3	260	
		1 x 6	25/32	5 1/2	5	261	
		1 x 8	25/32	7 1/2	7	262	
		1 x 10	25/32	9 1/2	9	263	
		1 x 12	25/32	11 1/2	11	264	
cove rustic		1 x 6	3/4	5 1/2	5	270	
		1 x 8	3/4	7 1/2	7	271	
		1 x 10	3/4	9 1/2	9	272	
V-rustic		5/8 x 6	9/16	5 1/2	5	290	
		5/8 x 8	9/16	7 1/2	7	291	
		1 x 4	3/4	3 1/2	3	292	
		1 x 6	3/4	5 1/2	5	293	
		1 x 8	3/4	7 1/2	7	294	
		1 x 10	3/4	9 1/2	9	295	
Boston pattern Rustic		1 x 6	3/4	5 1/2	5	310	
		1 x 8	3/4	7 1/2	7	311	
		1 x 10	3/4	9 1/2	9	312	
paneling		1 x 6	3/4	5 1/2	5	313	
		1 x 8	3/4	7 1/2	7	314	
		1 x 10	3/4	9 1/2	9	315	
BEVEL SIDING		size (nom.)	A	B	C	D	no.
plain		1 1/2 x 4	15/32	3 1/2	2 3/4	3	320
		1 1/2 x 6	15/32	5 1/2	4 1/2	5	322
		1 1/2 x 8	15/32	7 1/2	6	7	323
bungalow		5/8 x 6	9/16	5 1/2	4 1/2	325	
		5/8 x 8	9/16	7 1/2	6	326	
		5/8 x 10	9/16	9 1/2	8	327	
		3/4 x 6	3/4	5 1/2	4 1/2	329	
		3/4 x 8	3/4	7 1/2	6	330	
		3/4 x 10	3/4	9 1/2	8	331	
		3/4 x 12	3/4	11 1/2	10	332	
		anzac		1 x 8	25/32	7 1/2	6 1/4
1 x 10	25/32			9 1/2	8 1/4	441	
1 x 12	25/32			11 1/2	10 1/4	442	
rabbeted		1 1/2 x 4	1 1/2	3 1/2	3	360	
		1 1/2 x 6	1 1/2	5 1/2	5	362	
		1 1/2 x 8	1 1/2	7 1/2	7	363	
		1 1/2 x 10	1 1/2	9 1/2	9	364	
		5/8 x 4	9/16	3 1/2	3	350	
		5/8 x 6	9/16	5 1/2	5	352	
		5/8 x 8	9/16	7 1/2	7	353	
		5/8 x 10	9/16	9 1/2	9	354	
		3/4 x 4	3/4	3 1/2	3	370	
		3/4 x 6	3/4	5 1/2	5	371	
		3/4 x 8	3/4	7 1/2	7	372	
		3/4 x 10	3/4	9 1/2	9	373	
		3/4 x 12	3/4	11 1/2	11	374	

The above standard milled patterns are the most widely used. For details see Pattern Book No. 4

California Redwood Association

nailing methods

Tongue and Groove—6" and narrower are blind nailed, one 6d finish nail per bearing through the tongue; 8" and wider are face nailed with two 8d siding nails per bearing.

Shiplap and Rustic—6" and narrower are face nailed, one nail per bearing, 1" in from overlapping edge. Wider courses are face nailed with two siding nails per bearing. (8d for 1" thickness, 6d for thinner.)

Bevel, Bungalow, Anzac—Plain: Face nailed, one siding nail per bearing, so that shank just clears tip of under-course. Rabbeted: Nail is driven 1" above thick edge. (8d for ¾" thickness, 6d for thinner.)

Board and Batten—Underboards, spaced ½" apart, are nailed with one 8d siding nail per bearing through center of the board. One 10d siding nail per bearing is driven through center of batten so that nail passes between the underboards.

General—When siding is applied vertically, nail to horizontal blocking placed not over 24" on centers. For exterior siding use durable nails, aluminum or hot-dipped galvanized. Choose nail size to allow 1½" penetration into stud, or stud and wood sheathing combined. Nails may be driven flush or countersunk. With natural finishes use a non-oily wood filler to avoid oil stains.

specifications for Redwood

- Size**—1 x 8, 6 x 6, etc.
- Working**—S4S, Rough, S1S Resawn face exposed, etc.; or Pattern—T&G Pattern 132 EE, etc.
- Dryness**, if desired (Kiln-dried).
- Grade**—Clear All Heart, A-Grade, etc.
- Grade mark**, if desired. Grade marked redwood, when available, gives assurance that the grade furnished is as specified. As a convenience for specifiers and job inspectors, redwood grade marks include "Certified Dry" designations for the finish grades, in addition to the standard grade marks. When so marked, it is evidence that the lumber has been kiln-dried at the mill and graded under CRA supervision. Example of such grade marks are reproduced below:



for accessories

- Nails and fastenings**—For exterior uses specify aluminum or hot-dipped galvanized nails, screws, etc. See Data Sheets 4A1-1 and 4A1-2.
- Application**—For general application and finishing of siding, see Data Sheet 3A4-1. For specific types—Board & Batten, 3A4-2; Shiplap & Rustic, 3A4-3; Bevel & Bungalow, 3A4-4; Anzac, 3A4-5; Tongue & Groove, 3A4-6. For interiors, 3A7-1 and 3A7-2.
- Finishes**—Specify by brand name and manufacturer. For list of natural exterior finishes, see Data Sheet 4B3-1. For maintenance, Data Sheet 4B5-1. For interior finishes, 4B4-1.

technical information

Technical information on redwood may be obtained by writing to the California Redwood Association. Architects and engineers who have continuous need for detailed information on redwood may obtain a copy of the Architect's Redwood File upon request. This file contains all of the data sheets referred to above, with the exception of the Pattern Book and the Standard Specifications for the Grades of Redwood Lumber. These two publications will also be sent upon request.

member sales offices

ARCATA REDWOOD COMPANY
P. O. Box 218, Arcata, California

HAMMOND LUMBER COMPANY
417 Montgomery Street
San Francisco 6, California

HOLLOW TREE REDWOOD COMPANY
110 West Ocean Boulevard
Long Beach 2, California

HOLMES EUREKA LUMBER COMPANY
405 Montgomery Street
San Francisco 4, California

HULBERT & MUFFLY
P. O. Box 356
Cloverdale, California

THE PACIFIC COAST COMPANY
P. O. Box 611
Willits, California

THE PACIFIC LUMBER COMPANY
100 Bush Street
San Francisco 4, California

ROCKPORT REDWOOD COMPANY
818 Crocker Building
San Francisco 4, California

SIMPSON REDWOOD COMPANY
405 Montgomery Street
San Francisco 4, California

UNION LUMBER COMPANY
620 Market Street
San Francisco 4, California

WILLITS REDWOOD PRODUCTS COMPANY
Hobbs-Wall Lumber Co., Sales Agent
405 Montgomery Street
San Francisco 4, California

PRINTED IN U.S.A.

California Redwood Association

576 Sacramento Street

San Francisco 11, California

Digitized by:



ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL

www.apti.org

BUILDING
TECHNOLOGY
HERITAGE
LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:

NATIONAL BUILDING ARTS CENTER

<http://web.nationalbuildingarts.org>